

**REMARKS**

Claims 1-31 are pending in this application with claims 19-31 being withdrawn from consideration. By this Amendment, claims 1 and 3-5 are amended. No new matter is added. Reconsideration based on the above amendments and the following remarks is respectfully requested.

**I. Claim Objection**

The Office Action objects to claim 1 due to informalities. Claim 1 is amended in accordance with the Examiner's suggestion. Withdrawal of the objection is respectfully requested.

**II. Rejection Under 35 U.S.C. §112, Second Paragraph**

The Office Action rejects claim 3 under 35 U.S.C. §112, second paragraph, as being indefinite. Claim 3 is amended to obviate the rejection. Withdrawal of the rejection is respectfully requested.

**III. The Claims Define Patentable Subject Matter**

The Office Action rejects claims 1, 2, 4, 7, 8, 10, 11, 13, 14, 16 and 17 under 35 U.S.C. §102(e) over U.S. Patent Publication No. 2006/0154248 to McGrew et al. (McGrew); rejects claim 3 under 35 U.S.C. §103(a) over McGrew in view of U.S. Patent No. 5,658,732 to Ebersole et al. (Ebersole); rejects claim 5 under 35 U.S.C. §103(a) over McGrew in view of U.S. Patent Publication No. 2003/0033700 to Takeuchi et al. (Takeuchi); rejects claim 6 under 35 U.S.C. §103(a) over McGrew in view of U.S. Patent No. 5,605,662 to Heller et al. (Heller); and rejects claims 9, 12, 15 and 18 under 35 U.S.C. §103(a) over McGrew in view of U.S. Patent Publication No. 2003/0214200 to Thompson et al. (Thompson). These rejections are respectfully traversed.

Independent claim 1 recites, *inter alia*, "the support has a thin area surrounded by a thick area and the vibration areas are positioned at the thin area." Support for the amendment can be found in the specification at, for example, Figs. 1-6.

The passage relied upon by the Office Action for disclosing the recited passage of McGrew merely discloses a laminate comprising a substrate 424, electrode strips 420, a thin layer 412 and an elastic polymer membrane 408. The thin layer 412 is one part of the laminate body. From the side view, it is apparent that the array has an equal thickness. On the other hand, in the chip of the presently claimed invention, the support (substrate) itself has a thin area surrounded by a thick area. That is, the thickness of the chip is not equal.

McGrew thus fails to teach or disclose a support that has a thin area surrounded by a thick area and vibration areas positioned at the thin areas as recited in claim 1. Ebersole, Takeuchi, Heller and Thompson fail to cure the deficiencies of McGrew. Accordingly, the applied references, alone or in any combination, fail to teach or suggest each and every feature of independent claim 1.

Furthermore, McGrew discloses an array having a vibration function with which the binding of target substances with probes can be detected by measuring resonance frequency. On the other hand, the vibration function of the claimed invention is effective for reducing the reaction period and preventing a mismatched binding. This can be shown in the specification at, for example, page 21, lines 15-25. Because this feature is not taught or suggested in McGrew or any of the other applied references, the presently claimed invention would not have been obvious to one of ordinary skill in the art from the combination of McGrew and any of the other references.

For at least these reasons, independent claim 1 and its dependent claims are patentable over the applied references. Thus, withdrawal of the rejections of the claims is respectfully requested.

**IV. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of the pending claims are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



James A. Oliff  
Registration No. 27,075

Obert H. Chu  
Registration No. 52,744

JAO:OHC/mdw

Date: April 4, 2007

**OLIFF & BERRIDGE, PLC**  
**P.O. Box 19928**  
**Alexandria, Virginia 22320**  
**Telephone: (703) 836-6400**

<p>DEPOSIT ACCOUNT USE AUTHORIZATION Please grant any extension necessary for entry; Charge any fee due to our Deposit Account No. 15-0461</p>
--